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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,729	05/13/2002	Sigmund Lenz	MAF0002.US	6110

7590

06/05/2003

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EXAMINER

LEE, BENNY T

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.



Patent and Trademark Office

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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.

EXAMINER	
ART UNIT	PAPER NUMBER
	9

DATE MAILED:

This is a communication from the examiner in charge of your application.

COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☒ Responsive to communication filed on 31 May 2007 ☐ This action is made final.

A shortened statutory period for response to this action is set to expire Three (3) month(s), Days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948. |
| 3. <input checked="" type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449 | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152 |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474 | 6. <input type="checkbox"/> |

Part II SUMMARY OF ACTION

1. ☒ Claims 8-14 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
2. ☒ Claims 1-7 have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 8-14 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☐ This application has been filed with Informal drawings which are acceptable for examination purposes until such time as allowable subject matter is indicated.
8. ☐ Allowable subject matter having been indicated, formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. These drawings are: ☐ acceptable;
☐ not acceptable (see explanation).
10. ☐ The ☐ proposed drawing correction and/or the ☐ proposed additional or substitute sheet(s) of drawings, filed on _____ has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed _____, has been ☐ approved. ☐ disapproved (see explanation). However, the Patent and Trademark Office no longer makes drawing changes. It is now applicant's responsibility to ensure that the drawings are corrected. Corrections **MUST** be effected in accordance with the instructions set forth on the attached letter "INFORMATION ON HOW TO EFFECT DRAWING CHANGES", PTO-1474.
12. ☒ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☒ been received ☐ not been received
☐ been filed in parent application, serial no. _____; filed on _____
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

SN 31729

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The disclosure is objected to because of the following informalities: Page 1, line 9, note that --Patent No-- should follow "U.S." for clarity; line 18, note that a --,-- should follow "another" for clarity. Page 2, lines 20, 21, note that --of Fig. 1-- should follow each occurrence of "transition" for clarity. Page 3, second full paragraph, note that reference to "Figs. 2 and 3" is not strictly correct in that "surfaces 7 and 8" and "substrate 1 next to micro strip 2" appear only in --Fig. 2-- and "ground surfaces 9" appears only in --Fig. 3. Clarification is needed. Page 4, line 14, note that --(see Figs. 2 and 3)-- should follow "support 14"; line 18, note that "wall 14" is not consistent with the earlier recitation of "support 14" and this description is --best shown in Fig. 2--. Page 5, first full paragraph, note that "surfaces 7 and 8" are not depicted in "Fig. 3" and this description needs clarification. Note that reference label "17" appearing in Fig. 1 needs description in the specification.

Appropriate correction is required.

The drawings are objected to because in Fig. 3, reference label --1-- need to be labeled as per page 5, line 4 of the specification. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claims 10, 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In claim 10, note that it is unclear whether the recitation "said plurality of ground surfaces include a first ground surface and a second ground surface" can properly characterize the invention. Note from claim 8 that the "plurality of ground surfaces" (i.e. 9 in Fig. 3) are "superimposed on one another". However, as evident from Fig. 2, the "first ground ⁹plane" (i.e. 7) and the "second ⁹ground plane" (i.e. 8) are arranged on a surface of the substrate such that such ground planes (7, 8) are not "superimposed on one another" as required by claim 8. Clarification is needed.

The following claim has been found objectionable for reasons set forth below:

In claim 12, note that "lies with its head" should be rephrased as --has a head thereof which lies-- for a better characterization.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 8, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weinreb et al (cited by applicants') in view of Kostriza et al.

Weinreb et al discloses a transition between a waveguide and a strip type transmission line comprising a substrate (8) including plural grounding surfaces or plates (9, 10) disposed on opposite surfaces of the substrate in a superimposing manner. A plurality of through contacts or via-hole conductors (14) electrically connect ground plates (9, 10) to each other as to prevent undesired signal propagation into the substrate. The waveguide (1) includes a wall (4) with an opening therein through which the substrate (8) projects, such that a metallic line or strip (11) (e.g. a micro strip as per col 3, ls 31, 32) on substrate (8) is disposed in the waveguide (1). A coupling antenna or probe (12) is coupled to line (11). While it is clear that the grounding plate (10) is removed within the waveguide (1), the reference is silent as to whether the remainder of ground plate (10) contacts the waveguide walls.

Kostriza et al (fig. 1) disclose that a transition between a hollow waveguide and a planar strip, where the planar strip (7) in Fig. 2) is disposed on a substrate (3) which also includes a ground plane conductor (1) electrically connected to waveguide wall (5). As described at col 2, ls 40-43, the connection of the ground plane conductor (1) to waveguide wall (5) is for impedance matching purposes.

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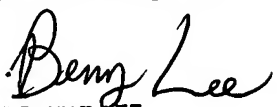
Accordingly, it would have been obvious in view of the references, taken as a whole, to have modified the ground plate (10) of Weinreb et al to have been in contact with the waveguide wall. Such a modification would have been considered obvious in view of the teaching of Kostriza et al that by contacting the ground plane to a waveguide wall, the benefit of impedance matching would have been obtained, thereby suggesting the obviousness of such a modification.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the preceding rejection as applied to claim 8 above, and further in view of Qvist.

Qvist (Fig. 5) discloses a micro strip to waveguide transition comprising a substrate (7 in Fig. 2) having a tongue portion (11) extending into a cavity (4) of waveguide (2). A micro strip line (8) extends into the waveguide and terminates into a pad (5 in Fig. 2) having upper side (14) and lower side (13) electrically connected by a via (15) and functioning as an antenna or probe. Such an arrangement providing for improved matching to certain frequencies.

Accordingly, it would have been obvious in view of the reference, taken as a whole, to have modified the probe (12) of Weinreb et al to have been a probe having portions on both surfaces of the substrate connected by a via hole as taught by Qvist. Such a modification would have been considered obvious since it would have imparted to the combination the added benefit if providing an antenna probe with increased matching to desired frequencies as taught by ~~+++++Qvist~~ Qvist, thereby suggesting the obviousness of such a modification.

Any inquiry concerning this communication should be directed to Benny Lee at telephone number (703) 308-4902.


BENNY T. LEE
PRIMARY EXAMINER
ART UNIT 2817